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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/573,507	08/28/2006	Olivier Lavastre	F-884 (31223.00114)	3556
25264 7590 07/08/2010 FINA TECHNOLOGY INC PO BOX 674412 HOUSTON, TX 77267-4412				
EXAMINER				
LU, C CAIXIA				
ART UNIT		PAPER NUMBER		
1796				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/573,507

**Applicant(s)**

LAVASTRE ET AL.

**Examiner**

Caixia Lu

**Art Unit**

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 48, 52 and 56 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 48, 52 and 56 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/C)
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_
- Paper No(s)/Mail Date: \_\_\_\_

## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informalities:
  - (i) Page 3, lines 28-30, the polystyrene supported catalyst component is generically describe as "a porous functionalized bead of polystyrene and wherein the catalyst component is covalently bound to the support and is an iron based complex of general formula (I)". However, in the working example disclosed on page 12, the polystyrene supported catalyst blue beads is represented by structure 3 in lines 7-9 which does not have a covalent bound between the support 2 and the iron based complex 1. The cited working example is not consistent with the general description of the polystyrene supported catalyst.
  - (ii) Page 10, line 8, the disclosure of "which pressure??" is incomplete.  
Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

2. Claims 48, 52 and 56 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The process limitation of "combining porous polystyrene beads with a catalyst is[sic] represented by the formula (I)... obtaining styrene supported catalyst" in lines 3-10 is new matter. The support for the claimed

limitation in the application as originally filed appears to be the disclosure of a hollow beads of polyethylene prepared by the steps of "providing a supported catalyst component wherein the support is a porous functionalized bead of polystyrene and wherein the catalyst component is covalently bound to the support and is an iron based complex of general formula (I) ..." in page 3, line 25 to page 4, line 13 of the specification. First of all, the polystyrene support as originally filed is limited to "a porous functionalized bead of polystyrene" rather than "the porous polystyrene beads" of the instant claim. Apparently, "the porous polystyrene beads" is not necessarily functionalized; therefore, the limitation of "porous polystyrene beads" is broader in scope as compared to the disclosure of "the porous functionalized beads of polystyrene" and thus contains new matter. Secondly, the polystyrene supported catalyst as originally filed requires the iron based complex to be covalently bonded to the polystyrene beads, while the instant claim only calls for combining the polystyrene beads with the iron based complex, i.e., the chemical bonding between the polystyrene beads with the iron based complex is not required in the instant claim; therefore, the first combining step contains new matter.

It is noted that the working example for the preparation of the styrene supported iron based complex 1 blue beads (3) disclose on page 12 in the specification does not require covalent bonding between the polystyrene beads 2 and the specific iron based complex 1. However, the specific iron based complex 1 does not provide full support for the generic iron based complex of formula (I) of the instant claim. Furthermore, the

disclosure of page 12 appears to be erroneous as indicated the Objection of Specification section above.

### ***Response to Arguments***

3. Applicant's arguments filed May 17, 2010 have been fully considered and the rejections under 35 U.S.C. 103 and 112, second paragraph are withdrawn in view of Applicants' amendments. However, the rejections under 35 U.S.C. 112, first paragraph and Objection to the Specification are maintained.

Applicants state that the Examiner's rejection appears to be directed to a claim limitation of "providing a supported catalyst component...", however, such a limitation does not appear in claim 48. It is the examiner's position that the rejections under 35 U.S.C. 112, first paragraph of previous Office Action and restated above are rejecting the limitation of "combining porous polystyrene beads with a catalyst is [sic] represented by the formula (I)... obtaining styrene supported catalyst" in lines 3-10 of claim 48. Because Applicants have not indicated any errors in the rejections, the rejections are still deemed proper and thus maintained.

### ***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Caixia Lu whose telephone number is (571) 272-1106. The examiner can normally be reached on 9:00 a.m. to 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Caixia Lu/  
Primary Examiner, Art Unit 1796